

Course Unit	Education for Sustainable Development I	Field of study	Educational Sciences
Bachelor in	Environmental Education	School	School of Education
Academic Year	2021/2022	Year of study	2
Type	Semestral	Semester	1
Level	1-2	ECTS credits	6.0
Code	9082-620-2102-00-21		
Workload (hours)	162	Contact hours	T - , TP 45, PL - , TC 9, S - , E - , OT 18, O -

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Maria Conceição Costa Martins

### Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Understand the implications of overexploitation of natural resources.
2. Identify the biotic and abiotic characteristics observed in each biome.
3. Interpret the transfer of matter and energy in ecosystems is carried out.
4. Relate the concept of homeostasis with the natural functioning of the systems.
5. Recognizing the negative environmental aspects resulting from the industrialized society.
6. Discuss the role of man as a modifier of ecosystems.
7. Problematicize the role of environmental educators in promoting change of conservation practices of diversity and quality of natural resources.

### Prerequisites

Before the course unit the learner is expected to be able to:  
Prerequisites are not required.

### Course contents

1. Environment: systemic approach; 2. Operation and diversity of ecosystems; 3. Man as modifier of ecosystems; 4. Preventive measures for the major global environmental problems; 5. The role of the Environmental Educator in promoting the change of human practices relating to natural resources.

### Course contents (extended version)

1. Environment: systemic approach
2. Operation and diversity of ecosystems
  - Biotic and abiotic characteristics of ecosystems
  - Major ecosystems in the world
  - Interrelationship between living things in an ecosystem
3. Man as modifier of ecosystems
  - Overexploitation of natural resources
  - Effects of pollution on species and ecosystems
  - Climate change and carbon market
4. Preventive measures for the major global environmental problems
  - Sustainable consumption
  - Alternative sources of energy production
  - Fighting the illegal trade of species and the biodiversity loss
  - Protected Area establishment and management
5. The role of the Environmental Educator in promoting the change in human's practices towards Nature

### Recommended reading

1. Comissão Europeia (2007). Regulamentação relativa ao comércio de espécies da fauna e da flora selvagens na União Europeia. Introdução à CITES. Publicações Oficiais CE.
2. Figueiró, A. (2015). Biogeografia: dinâmicas e transformações da natureza. Oficina de Textos.
3. Meira-Carreira, P. A. (Coord.) (2012). Conhece e valoriza as alterações climáticas. Propostas para trabalhar em grupo. Gráficas Mera.
4. Odum, E. P., & Barrett, G. W. (2008). Fundamentos de ecologia. Cengage Learning.
5. UNEP (2021). Emissions gap report 2021: The heat is on – A world of climate promises not yet delivered. United Nations Environment Programme (UNEP). <https://www.unep.org/emissions-gap-report-2021>

### Teaching and learning methods

Theoretical classes: content-exposed by teacher, with intervention of students. Theoretical and practical classes: issues posed by teacher- in students discussion, using research and developing argumentative capacity. Tutorial Classes - discussion of issues in students work groups; Field class: interpretation of landscape and relationships between man and nature.

### Assessment methods

1. Continuous evaluation - (Regular, Student Worker) (Final)
  - Intermediate Written Test - 70%
  - Development Topics - 30% (Critical reflection based on news and movies. Plenary discussion during class)
2. Alternative 2 - (Regular, Student Worker) (Supplementary, Special)
  - Final Written Exam - 70%
  - Development Topics - 30% (Corresponds to the continuous assessment done during the semester)

### Language of instruction

Portuguese, with additional English support for foreign students.

## Electronic validation

Maria Conceição Costa Martins	Delmina Maria Pires	Paulo Miguel Mafra Gonçalves	Carlos Manuel Costa Teixeira
27-10-2021	27-10-2021	29-10-2021	24-11-2021